

REMARKS

The following remarks are prepared in response to the Office Action of July 17, 2006. Claims 1-18 and 24-30 remain pending in this application. Reconsideration in light of the remarks made herein is respectfully requested.

The present invention relates to rack architecture with an interface column to reduce cabling in the rack cabinet as well as centralized system management to efficiently monitor and control devices in the rack cabinet. The present invention results from the discovery that by utilizing an interface column within the rack along with an electrically conductive bus, the need for cables can be reduced. The reduction of cables is useful because cables tend to tangle and become unplugged. Therefore, any reduction of cables eases the use of the rack architecture and also provides greater functional stability.

Independent Claim 1

The Examiner has rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over *Gamble et al.* (U.S. Patent No. 6,201,692, hereinafter “*Gamble*”) in view of *Brahm et al.* (U.S. Patent No. 4,654,820, hereinafter “*Brahm*”). Applicant respectfully traverses.

Gamble is directed towards solving the problem of mixed drive sizes, e.g., mixing “slim” and “half high” disk drives in a rack (*Gamble*, col. 1, lns. 6-8). In contrast, the present invention is directed towards solving the problem of reducing cables within the rack.

On page 2 of the office action, the Examiner acknowledges that *Gamble* does not disclose “an interface column including an electrically conductive bus coupled to the one or more interfaces” as recited in independent claim 1. Combining *Brahm* with *Gamble* does not remedy this deficiency and hence does not produce the claimed invention.

Brahm does not disclose “an interface column including an electrically conductive bus coupled to the one or more interfaces” as recited in independent claim 1. *Brahm* seeks to solve the problem of the inability of peripheral units served by secondary processors to initiate interrupts (col. 2, lns. 5-11). It is not aimed at solving the problem of wire clutter within rack enclosures.

On page 2 of the office action, the Examiner alleges that *Brahm* discloses an interface plate (figure 4) having a plurality of interfaces (305) being connected by a plurality of electrically conductive buses (102, 104). The buses in *Brahm* are interrupt buses and are formed on a printed circuit board backplane (col. 2, lns. 44-47; claim 1). Interrupt buses transmit interrupt requests and acknowledgements (col. 1, lns. 45-53). The electrically conductive bus as recited in independent claim 1 is not an interrupt bus and has more functionality such as the ability to merge and consolidate a variety of digital signals (specification, ¶ 0039). In contrast, the interrupt buses disclosed in *Brahm* provide distinct interrupt levels to the processors (col. 2, lns. 25-29).

As stated in MPEP § 2145(X)(D)(2), “[i]t is improper to combine references where the references teach away from their combination.” A person seeking to solve the problem of mixing “slim” and “half high” disk drives in a rack (*Gamble*) would not look to an interrupt bus structure (*Brahm*) for inspiration. Thus, *Gamble* and *Brahm* are improperly combined.

Even if the two references are properly combinable, the resulting combination would not produce the claimed invention. The resulting combination would be a back panel connected to the side panels for connecting “slim” and “half high” disks via interrupt buses. The combination would not have the ability to have the back panel connected to someplace other than the side panels nor could the buses be utilized for anything other than interrupts.

Neither *Gamble* nor *Brahm*, solely or in combination, teach or suggest “an interface column including an electrically conductive bus coupled to the one or more interfaces.” Thus, claim 1 is patentably distinct over the combination of *Gamble* in view of *Brahm* and the rejection under 35 U.S.C. § 103(a) should be withdrawn.

Dependent Claims 2-18

Claims 2-18 depend from independent claim 1, adding structural features that more particularly define the invention and further distinguish over the cited references and the prior art of record. For these reasons, and the reasons set forth above for claim 1, the rejection of these dependent claims under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Independent Claim 24

The Examiner has rejected Claim 24 under 35 U.S.C. 103(a) as being unpatentable over *Gamble* in view of *Brahm* and *Young et al.* (U.S. Patent No. 6,018,456, hereinafter “*Young*”). For the reasons discussed above for claim 1, claim 24 is also patentably distinct. In addition, claim 24 further recites “a control module coupled to the electrically conductive bus in the interface column to provide management access to the one or more electrical devices coupled to the interface column.”

The Examiner alleges that *Young* discloses “an enclosure (figures 1-3) having at least one controller being connected to a midplane module (34), wherein the controller is configured to provide a connection between the electronic devices and the midplane.” The midplane module 34 in *Young* is a power supply module 34 (col. 5, lns. 66-67). In *Young*, the controller is connected to a power supply. Hence, the controller is not connected to a bus to provide management access to the one or more electrical devices. In addition, the only connection the power supply 34 has are connectors 38 to transmit power to the docking connector 24 which is

connected to backplane 20 (col. 6, lns. 4-6; figure 2). In contrast, claim 24 recites “a control module coupled to the electrically conductive bus in the interface column to provide management access to the one or more electrical devices coupled to the interface column.”

Gamble, *Brahm* or *Young*, solely or in combination, do not teach or suggest “a control module coupled to the electrically conductive bus in the interface column to provide management access to the one or more electrical devices coupled to the interface column.” Thus, claim 24 is patentably distinct over the combination of *Gamble* in view of *Brahm* and *Young* and the rejection under 35 U.S.C. § 103(a) should be withdrawn.

Dependent Claims 25-30

Claims 25-30 depend from independent claim 24, adding structural features that more particularly define the invention and further distinguish over the cited references and the prior art of record. For these reasons, and the reasons set forth above for claim 1, the rejection of these dependent claims under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Conclusion

If there are any questions with regards to this response, or if the Examiner believes that a telephone interview will help further the prosecution of the case, he is respectfully requested to contact the undersigned attorney at the listed telephone number.

Very truly yours,

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